

AMENDMENT TO THE ABSTRACT OF THE DISCLOSURE

Delete the Abstract of the Disclosure and replace with the following:

-- ABSTRACT OF THE DISCLOSURE

A fail-safe torque transducer ~~system~~, and an automotive power steering torque ~~sensor~~ system ~~employing the same~~, utilizing a two-stage series coupled torsion bar system. The ~~A~~ first stage torsion bar ~~is used to provide~~ ~~low torsion rate~~ tuning of the steering system, and ~~by~~ ~~reducing its diameter relative to the second stage~~, provides a lower torsional spring rate ~~and~~ ~~higher operational stress level than that of the second stage~~. The second stage torsion bar is ~~larger in diameter than the first~~ and provides the stress/strain indicia referenced by ~~the a~~ torque-measuring device. ~~The second stage torsion bar, and being stiffer and larger in diameter~~, is stressed at a lower level than the first stage. ~~The second stage bar and~~ therefore has a higher cycle life than that of the first stage bar. ~~Moreover~~ Hence, if stress related failure ever occurs, it will only occur in the first stage torsion bar. ~~Any failure of the first stage will prevent thereby preventing~~ any torque from reaching the second stage, thereby causing a zero strain signal and thus rendering the system fail-safe and not subject to instability of vehicle steering if the torsion bar breaks.--